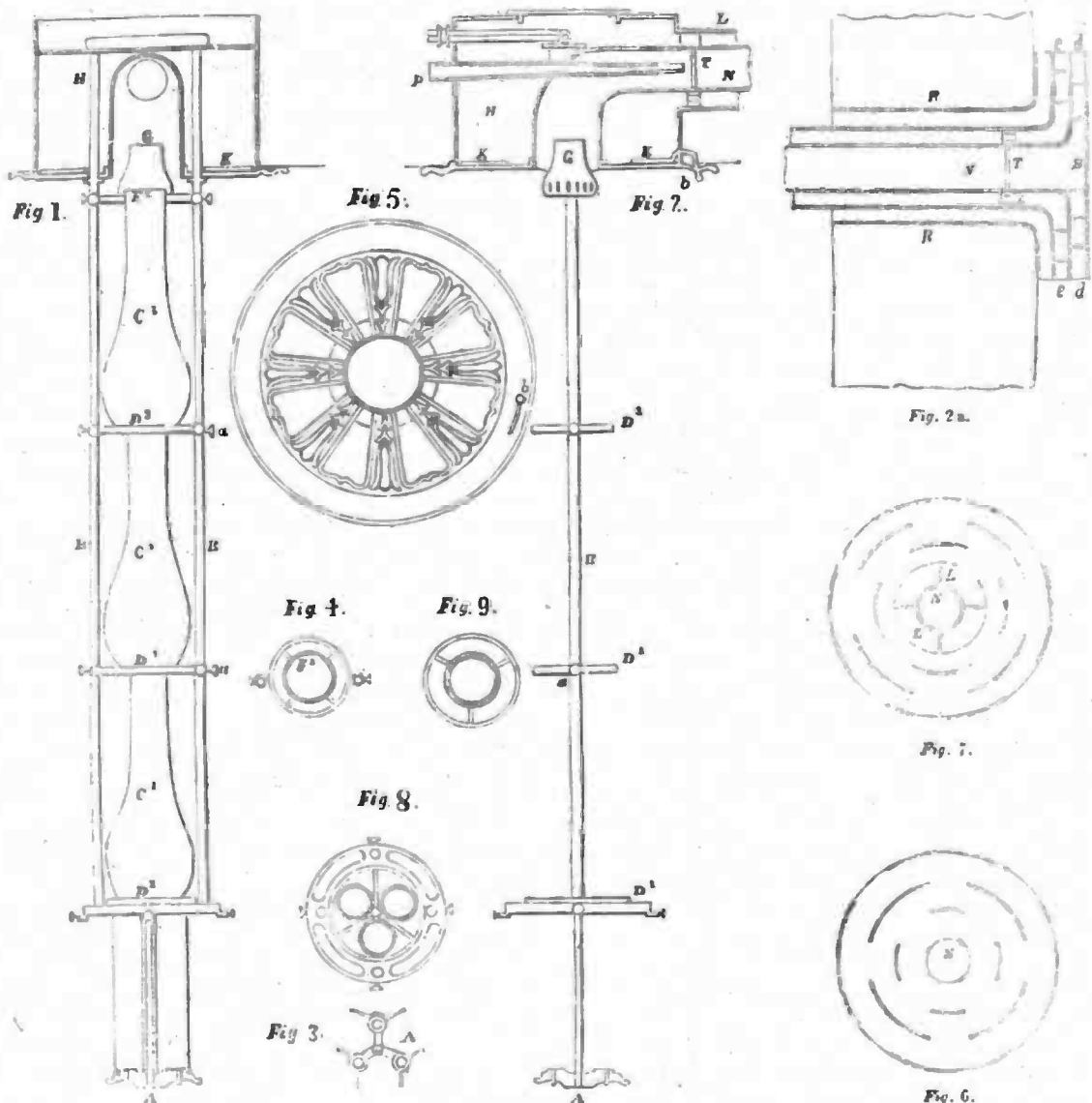


## PENDANT GAS LAMP.

NEW DOORS AND DETAILS FROM  
YORK MINISTER.

Our engraving represents the new centre door in the west front of the minister, as recently executed from the design of Mr. S. Smirke. The details given last week with our view of the north (and south) door, as well as those now added, belong equally to all the doors and are drawn half the real size.

The dotted lines on section A—B (last week), shew the hood moulding and capitals,

## PENDANT GAS LAMP.

We have received the following account from Mr. Jones, the inventor, and insert it as bearing on the subject of ventilation:—

This mode of burning gas, to which the inventor directs attention, is the subject of a registration, and presents a system of discharging the deleterious gases in many respects superior to ventilated gas lights, which have preceded it. It is peculiarly adapted for consuming gas highly carbonized by Mr. Lowe's patent process of naphthalizing, owing to its being raised to a high temperature previously to combustion at the burner. It is intended to use, in conjunction with this light, the earthenware pipe and conical glasses patented by Mr. Grant, for the purpose of causing a more rapid discharge of the vitiated air, and also to diminish the quantity of radiated heat atten-

dant upon the use of metallic pipes. It will be observed from the accompanying diagrams, that not only are the products of combustion completely discharged, but the apartment in which the light is fixed is thoroughly ventilated and kept at any degree of temperature at pleasure. Back draught is avoided by the construction of the external wind-guard, thus ensuring an atmosphere at once healthy and under perfect control. It may be as well to state that this mode of lighting is equally applicable to a public building, or a private apartment, any quantity of light being obtainable from one focal point.

Fig. 1 is a front elevation, and fig. 2 a side elevation of this lamp and its appendages. A is a compound burner consisting of three burners on the Argand principle, arranged in one plane, so as to produce one strong column of light, as shown in the separate plan of this part of the apparatus given in fig. 3. B B are two tubes, which conduct the gas from the supply-pipe downwards to the jets of the burner.

C¹ C² C³ are three bulb-shaped glass chimneys, rising one above the other, and resting, just below their greatest diameters, on rings D¹ D² D³, which is connected to the supply-pipe, E E, which are pendent from the roof, and common to all three. A plan of the lowest ring, D¹, is given in fig. 8. The top of each of the two lower chimneys, C² C³, rises a little way within the chimney immediately above it; the height to which each is so raised being

adjustable at pleasure by means of the thumb-screws *a a*. Within each of the rings, D² and D³, there is an inner ring, F¹ (fig. 4), which encircles and serves to keep steady the tops of the chimneys C¹ and C². The top of the chimney C³ is also encircled and steadied by a similar ring, F², which is attached by radial arms to the funnel G.

H is a ventilating head, or cap, which is inserted between the ceiling of the room in which the lamp is hung and the floor of the apartment above. It has openings on the under side which correspond with similar openings in the fly-plate K. The ornamental face-plate is represented in fig. 5. K is the fly-plate, by turning which round, by means of the knob *b*, the different apertures are opened or closed, and either wholly or partially, at pleasure. L is a pipe, which is carried from the head H in a lateral direction, through the wall M, to the external atmosphere.

The metal funnel G opens into a pipe N, which, passing up the centre of the head H, turns off at a right angle, and terminates in the wind-guard (fig. 2a) on the outside of the building.

While the more immediate products of combustion pass away through the chimneys C, Funnel G, and pipe N, the heated and vitiated air of the apartment escapes through the openings in the ventilating head H, along the pipe L, to the wind-guard S.

P is a small conical draught-pipe, which is